THE TECH

DAILY

VOL. XXIX. NO. 48. BOSTON, MASS., TUESDAY, NOVEMBER 23, 1909 PRICE ONE CENT

MINE CATASTROPHES TO BE INVESTIGATED

Experiments To Determine Conditions Leading To An Explosion

Some interesting experiments to determine the conditions necessary for explosions in coal mines are soon to be commenced in the Mining Laboratories by Mr. J. A. Grant, a graduate of the University of Minnesota. Mr. Grant comes from the mines at Sand Coulee, Mont., where he has been located for the past two years.

In spite of the frequency with which disastrous explosions occur in coal mines, very little is known in regard to actual conditions leading up to such catastrophes. Mr. Grant has been forcibly impressed by the need of such knowledge, and feels that a year or so can be very profitably spent in investigation. Carelessness of the more or less ignorant foreign labor employed in the mines has, no doubt, much to do with causing explosions, but effective prevention necessitates knowledge of conditions which are dangerous in themselves.

The first step taken by Mr. Grant will be the analysis of numerous samples of the dust present in coal mines in various parts of Montana, but principally from the Sand Coulee mines. These samples include dust (1) from the actual working faces of the mines, where the coal is now being extracted, (2) from the trackways, where more or less accumulates due to the grinding up of larger pieces of coal, (3) from the main airways, which would contain other impurities from the outside, and (4) from the old workings which have been abandoned. The analysis will be for the purpose of ascertaining the amount of moisture, volatile matter, and fixed carbon contained in the samples from the various parts of the mines. Volatile matter in coal consists of gaseous matter and some of the carbon which is capable of being driven off on increase of temperature.

Using mixtures of air and gas which conform as nearly as possible with actual ordinary conditions in mines, Mr. Grant will next endeavor to determine the percentage of dust of the various compositions shown by the analyses necessary to produce an explosive or inflammable mixture. This will be accomplished by means of actual experiments carried on in the laboratory.

This much accomplished, Mr. Grant can then compute from the data obtained. the percentages of volatile matter and fixed carbon, as well as several gases, such as carbon monoxide, methane, etc., which are present when explosion or firing takes place. Finally, the percentage of moisture and slate dust, which is not inflammable, necessary to render the above determined dangerous mixture "dead" or harmless, may be ascertained.

As a result of his investigations, Mr. Grant hopes to obtain sufficient data to enable him to institute methods for the prevention of disastrous explosions in the coal mines of of the country.

CALENDAR.

Tuesday, November 23.

8:00 P. M.—Chemical Society in Union. Talk.

8:00 P. M.—Meeting Mining Eng. Society Harvard Union.

Wednesday, November 24.

4:00 P. M.—Basket ball practice.

Friday, November 26.

4:00 P. M.—Basket ball practice.

8:00 P. M.—Joint concert and dance at Mechanics Building.

GRAND POP. CONCERT AT UNION FRIDAY

Orchestra To Render Music All Evening--A Sleight-of-Hand Performance

This coming Friday night the entertainment in the Union will be slightly different than during the past weeks. This week the committee have decided to have a Pops concert. This concert will be conducted along the same lines as the big Pops concert in Symphony Hall.

The large room in the Union will be filled with small tables, and refreshments will be served at moderate prices. Throughout the evening an orchestra will render popular music. The seating capacity, which is necessarily small, will have to be lived up to, so the committee have been forced to restrict the number of tickets to 200. These tickets will be on sale in the Union at noontime until the supply is exhausted. The admission fee will be only 15 cents.

The entertainment part of the evening will be furnished by Mr. Sherwood Blodgett. Mr. Blodgett is a prestidigator of prominence. He will render card tricks and sleight of hand work that will undoubtedly prove to be most mystifying.

The committee wish to emphasize the fact that the number of tickets is limited. Therefore all who wish to attend should get their tickets right away, or perhaps they might get left.

CHEMICAL SOCIETY

H. S. Marks Will Address Members Tonight On "Cellulose"

There will be a meeting of the Chemical Society tonight at 8 o'clock in the Union. The speaker of the evening will be Mr. H. S. Marks of the firm of A. D. Little & Co. The subject of the talk is "Cellulose, its Chemical and Commercial Aspects." The talk should prove to be most interesting.

After the lecture, light refreshments will be served. Although this meeting is unfortunately near the Thanksgiving vacation, a large attendance is expected. Admission will be twenty-five cents.

CLASS BASKET-BALL

Manager Albee Working On His Schedule--Practice This Week

Manager C. H. Albee of the 1912 basket-ball team, is fast completing his schedule. In all probability, he will get games with Rockridge Hall, Chicopee High, and Durfee.

The team will be minus the services of M. C. Cherry, last year's captain, and also W. A. Canaday, neither man being in school this year. A. F. Kendrick, a substitute on last year's 'varsity, is showing up well. Other men who should prove strong are J. I. Hartnett, W. M. Ruby, R. Stone, R. A. Chandler, and A. J. Freedman. Members are to report for practice this week, and a large squad is desired.

The Freshman squad is as yet an unknown quantity, but every indication points to a team well capable of taking care of itself.

BASKET-BALL STARTS MANY OLD MEN BACK

During Mid-Year's Team Will Go To Rochester--Schedule Later

'Varsity basket-ball practise began yesterday at the Gym. About twenty men reported, and were put to work. Not much was done except light work and shooting at the baskets.

There are quite a number of last year's men in school and they serve as a good nucleus. These men are Wentworth 1910, who was captain last year and played guard; Parker 1911, the present captain, and last year's center; A. T. Bemis 1912, a snappy guard, and Lord 1910 and Hargraves 1910, two forwards, and Tate 1910, a guard. There are a number of new men out who look very promising, and there is reason to expect a good squad.

During the mid-year's vacation the basket-ball team will make the longest trip that any team from here has ever made. The schedule is not yet complete, but a trip will be made to Rochester, New York. Arrangements have been made for games with Rochester University, Conesius College, and with Niagara University. This should prove a very interesting vacation to the men. Besides these there will of course be the customary games with local colleges, as Dartmouth, Williams, Brown, Tufts, etc.

In addition to the 'varsity team there will be a second team which will play a regular schedule. There are plenty of men in the Institute capable of making this team if they will only come out and try.

Practise is being held three times a week, Mondays, Wednesdays and Fridays, from four to five. It is hoped a large number of good men will report. The schedule will be announced later, when it is definitely determined. The management, while not optimistic, feel that this year the Institute will be represented by a good team. They think that with such a nucleus of good men to start with, together with the new men, there have every reason to believe that the Technology basket-ball team will again come into its own.

TECHNOLOGY NIGHT

E. L. Orvington 1904 To Speak At Electrical Show Tonight

To-night is to be Technology night at the Electrical Exposition in Mechanics Building. A limited number of seats have been sent to Professor Merrill to be distributed to advanced Course VI. men. As a special feature of the regular programme, Mr. Earle L. Orvington, M. I. T. 1904, will speak on high frequency electric waves. Mr. Orvington was a prominent Course VI. man while at the Institute, and his remarks will be well worth hearing.

Among the many amateur wireless equipments entered in the amateur competition, a set constructed by E. H. Guilford 1912, is exciting no little attention. The wireless telephone is also the center of interest to many.

As this special night for Tech men has been set aside by the management of the Exposition mainly through the efforts of Mr. Orvington, it is safe to presume that a good number of men will take advantage of it. Course VI. men should especially try to go for practically everything new in the electrical world is on exhibition.

WIRELESS SOCIETY PROGRESSING RAPIDLY

Enthusiastic Meeting Held Yesterday--Reports All Favorable

A meeting of the Wireless Society was held in Room 11, Eng. B at 4 o'clock yesterday afternoon. About twenty-five members were present. After the secertary read the minutes of the previous meeting the reports of several committees were given.

The first report was that of the committee which studied the problem of erecting a pole for the transmission of the messages. Chairman Guilford said that a suitable pole could be erected on the Pierce Building at a small cost, provided the matter was looked upon favorably by the Executive Committee of the Institute. The roof of the building at the desired spot was found to be amply strong and other conditions were favorable. Chairman Guilford estimated the expense of erecting the pole at about $30.

Chairman Mason, of the room committee, reported that in all probability the room now used by the track team and musical clubs could be secured for the Society, with permission to erect a five-foot bench. This space would permit of the installment of three receiving outfits.

Pres. Moore reported that the Board of Directors had held a meeting during the past week, and the matter of dues had been taken up. It was decided to fix the dues at $1.00 per year, including initiation fees, dues and shingle. It was later decided that the dues would be raised to $1.00 initiaton fee and $100 for dues next year; also that members who fail to pay dues within two weeks should be dropped.

Samples of the shingle were distributed by Chairman MacKellar of the shingle committee. He said that the design had been submitted to members of the drawing department for criticism. They recommended that the border and lettering be entirely of black and gold on white paper.

H. S. Woehling, secretary, reported the application of about thirty men for admission to the society. This would make the total about seventy-five members. The names of the applicants were read, and it was voted that they could become members upon payment of dues.

Pres. Moore pointed out the fact that the application of the Society to install the receiving and sending outfits was now before the Executive Committee of the Institute. No trouble is expected about getting permission to put up the receiving outfit. The matter of a sending station is the one under consideration by the Executive Committee. The possibility of interference with government messages was the only reason that permission was not immediately given for the sending apparatus. This matter has been thoroughly investigated, and the result is thought to be favorable to the Society.

Assistance in setting up and operating the station will probably be given by several members of the faculty. Prof. Cross has already signified his intention to help the members. The fact that members of the faculty are becoming interested in the welfare of the Society, assures it a brilliant future.

One of the new campus regulations at the University of Utah says that special students who do not affiliate themselves with classes shall be governed by the freshman rules.

THE TECH.

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BOSTON, MASS., NOVEMBER 23, 1909

Again the Boston and Albany Railroad has had to complain about students crossing their tracks and jumping over the fence between the Trinity Place and Huntington Avenue stations. This is forbidden absolutely by law, and is dangerous to the men who do it. It is hoped that most of the offenders are freshmen and not upper classmen, but whoever they are, they are bringing discredit to the Institute. Especially is this true of the freshmen who do this when in uniform, which proclaims them surely to be Tech men.

It is hoped that when the men realize that their actions in this respect reflect upon the reputation of the Institute as a whole, they will no longer offend.

CURRENT EVENTS

In the annual report of the Isthmian Canal Commission just made public, the estimated cost of the canal is $375,201,000. This includes the cost of engineering, sanitation, civil government, and the original purchase price. The average number of men at work was 133,699, of whom about 5,000 were Americans.

The undergraduates of Columbia college and the Columbia schools of science are preparing a monster petition for the appointment of Prof. John Howard Van Amringe, the retiring dean of the college, as dean emeritus. The petition was prepared on rolls of parchment and it is expected that by Friday 500 names will have been signed thereto.

At a meeting of all men who have played in the State games, William E. Parker of Harrington, Me., was elected captain of the University of Maine football team for 1910. Although he is only a sophomore, Parker was the only logical candidate. He played a star game at right halfback last season and has been the mainstay in the back field this fall.

Perhaps Harvard can find some consolation in the victory of her chess team over that of Yale. The final score was 8 to 6, and is the sixth consecutive victory for the crimson in this strenuous sport.

HORNET'S NEST

"Gentlemen," began Dick, as he advanced into the room, "You have always heard that there's a place for everything and everything in its place.

"The 'Stute is the place for the Scarecrow Club and now is the time for it. If you people who are slinging the mud took the trouble to investigate the matter, you'd change your gear. The present movement is a world-wide one and most of the universities are acknowledging this by the establishment and knowledge of the subject. The era of aeronautics is just beginning and the 'Stute has got to keep up with the band. The Scarecrow Club will see that it does it. The question of automobile engineering never received any attention here, and the result is that even Rooster Poly is ahead of us in that subject. They've got grads well represented in the industry, too. We're going to have things different this time. This Scarecrow Club is not a brass band affair. The members are not only paying five times the usual fees for membership privileges, but are planning to give a fair amount of time to serious work on the subject. If the results of this work are what we hope for, a good foundation for a course in aeronautics will have been made. Now an organization with such definiteness of purpose and such worthy aims should not be classed with the mushroom variety. How about it, you, Demosthenes?"

"Well," quoth Quincy, deliberately, "let's wait and see."

Now, in the present instance, some seer looked up and saw a fake dirigible hanging in front of the Food Fair, and immediately had an inspiration. There must be a Scarecrow Club. It's fashionable, and everybody would come in. Get a Big Man to give a talk and then start it up. And they did. The questions that they put to the Big Man showed how much they needed a Scarecrow Club. The thing that gets me is how on earth did such sophisticated individuals as Dick, Cad and Billiken get roped in?"

"Such shocking sedition" came from the doorway, and we suddenly looked up to see the grinning visages of the three in question.

THE DOPESTER

Were you out for basket-ball practice yesterday afternoon? If not, why not?

All Aero Club members ought to go out for track now so that when the "glider" is finished, they will be in good training.

Give credit to Coach Kanaly for our showing in the Intercollegiates Saturday. We didn't get first, but we were certainly a good second against such a team as Cornell.

Management at the race was also in contrast to the management on Field Day. The managers certainly made an effort which should bring the race here another year. "Credit to whom credit is due," Graduate Manager, Frank Briggs; Undergraduate Manager, Paul Pearson.

In his annual report, President Butler of Columbia University stated that during the year, Columbia had received in gifts the large total of $498,002.07.

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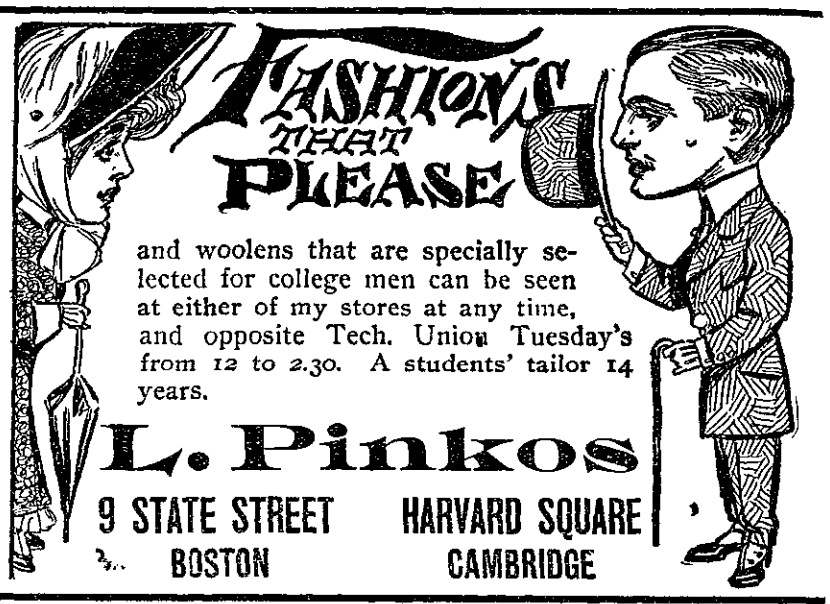

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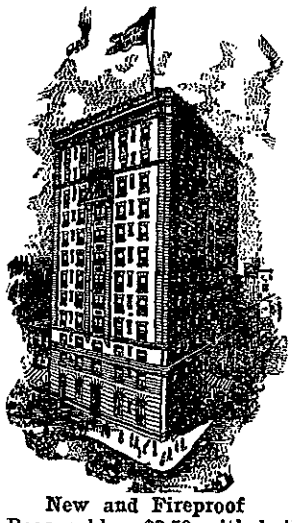
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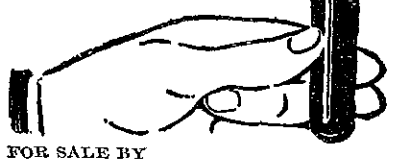
¶ There are many different kinds of Fountain Pens on the market, but there is only one that is absolutely satisfactory, and that is Moore's Non-Leakable.

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FRESHMEN DINNER

Committee Appointed -- Managers Of Teams Elected

The directors of the Class of 1913 yesterday appointed T. S. Senior chairman of the dinner committee. Merrill Haynes was also elected to serve on this committee. It was decided to hold the dnner on Friday night, December 17. R. S. Gans was elected manager of the baseball team, and J. B. Welch manager of the basket-ball team.

The question of the class deficit was also discussed and it was seen to be due to the failure of the fellows to pay their dues and not to any extravagance on the part of the committees, which have done their work in a highly commendable manner.

The following men have been authorized to receive dues and to give receipts and it is hoped that these men will be able to obtain dues from the members of their different sections, the numbers of which are placed after their names.

Birchard—Sec. 1.
R. B. Nichols—Sec. 10, 13.
W. Guild—Sec. 22.
W. N. Peck—Secs. 21, 18.
T. S. Senior—Secs. 21, 18.
S. Knight—Sec. 16.
H. E. Prentice—Sec. 16.
Pay up your dues, 1913.

Carl H. Mitchell of Portland, Me., has been unanimously elected captain of the Wesleyan football team for next season. Mitchell is a sophomore and has played centre for the two years he has been in college.

ALLEN 1911 CAPTAIN

Has Been A Member Of Gym Team For Past Two Years

Walter DeFriez Allen 1911, of Nantucket, was last night elected captain of the Technology Gym team. Since entering the Institute, Allen has been prominent in athletics, having been a member of the 'varsity track and gym teams, in both his freshman and sophomore years. He made his "T" in track in the N. E. I. A. A. meet in his freshman year, taking third in the pole vault, and last year, in spite of a bad ankle, he finished second to Holdman of Dartmouth, with but a scant inch and a half between them. Since then he has broken both the indoor and the outdoor record for the pole vault.

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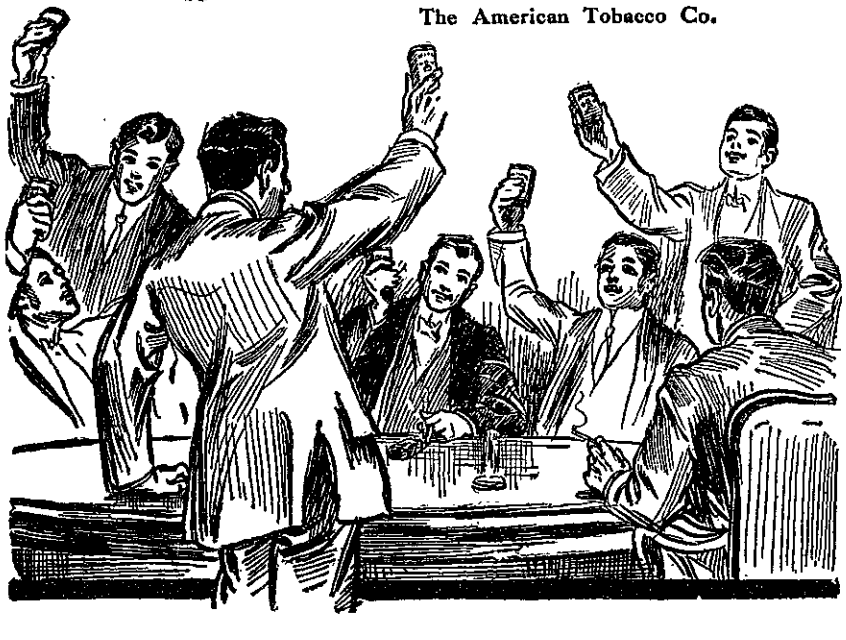

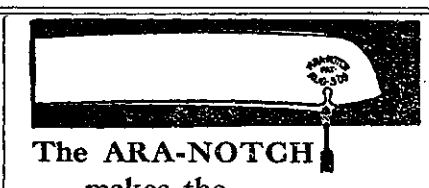
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GENERAL NOTICES.

Water Analysis.

Course XI. 4th year. Water Analysis. First exercise, Nov. 23.
Lectures—Tuesday 12 to 1, Room 23 Walker. (Nov. 23). Thursday 10 to 11, 23 W.
Laboratory, Tuesday and Thursday afternoons, Room 36 Walker.

FOURTH YEAR.
Hydraulics—Course X.

The first exercise will be on Tuesday, Nov. 23, in room 54 Eng. A.
WALTER HUMPHREYS,
Registrar.

100 MEN WANTED.

If you have any spare time between 10 A. M. and 10 P. M. see J. K. Mason at the Christian Ass'n office, Engineering B, between one and two o'clock. The Boston-1915 Exposition wants men who can serve as guides through the Exposition.

The Physical Society will meet in Room 20, Walker, Thursday at 4.30. Dr. Fay will speak on "The Structure of Alloys." Those interested are invited to attend. D. F. COMSTOCK.

UNION CLOSED.

The dining room, Union rooms and Cage will be closed during the day—Thursday, Nov. 25. 48-49

LOST.

A small black Moore's non-leakable fountain pen. Reward. See circulation manager The Tech.

AERO CLUB.

Associate and full members please pay initiation fees at Cage as soon as possible. S. W. SELFRIDGE.
48-50

1911.

1911 Dues may be paid to me at the Union between 1 and 2 every day.
E. A. NASH, Treas.

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Will all men who belong to fraternities not represented at the Institute please leave their names and society at the Cage for the Society editor of Technique. 45-48

INTERCOLLEGIATE NEWS

Colorado University undergraduates are demanding a daily publication for the institution.

The Syracuse University band has been put upon a permanent basis by the gift to each player selected of a scholarship valued at $60 a yer, the number of scholarships being limited to twenty.

John Marks, '11, was unanimously elected captain of next year's Dartmouth football team last night. Marks has played three years on the Dartmouth team and each season has been a most brilliant player.

Dedicatory exercises for the new building of the Harvard Dental School, which was recently completed on land adjoining the Harvard Medical School on Longwood Avenue, and which is being used this fall for the first time, will take place on Tuesday and Wednesday, Dec. 7 and 8. On the first of these days the new building will be opened for public inspection from 9 A. M. to 1 P. M.

Th Glider Club, a new departure of the Amherst Aero Club, has bought a gliding machine in New York. The first trial will be made in private, after which an official test wil be held this week.

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